

SYSTEM AND METHOD FOR PROVIDING DESTINATION-TO-SOURCE PROTECTION SWITCH SETUP IN OPTICAL NETWORK TOPOLOGIES

ABSTRACT OF THE DISCLOSURE

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A system and method for establishing protection routes in optical mesh networks. A protection protocol is provided that utilizes a destination-to-source communication channel to establish a source-to-destination protection route. The communication channel is established from the node detecting the failed link back
10 towards the transmitting node. As the destination-to-source communication channel is being established back towards the source node, it concurrently directs the nodes along this path to perform switching functions to subsequently allow the information originally intended for transmission via the failed link to be switched to the alternate protection path. Various manners of ascertaining the protection routes are also
15 provided, including predetermined and/or dynamically-generated protection paths established via the destination-to-source communication channel.